**TESTIMONY OF PAUL A. AGATHEN**
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**BEFORE THE HOUSE GOVERNMENT REFORM AND OVERSIGHT COMMITTEE**
**SUBCOMMITTEE ON NATIONAL ECONOMIC GROWTH, NATURAL RESOURCES, AND REGULATORY AFFAIRS**
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Good morning, Mr. Chairman and members of the committee. Thank you for the opportunity to appear today to discuss the Kyoto Protocol and the significant impacts the treaty would have on the electric utility industry, my company, and our customers that would be affected by higher electricity rates.

My name is Paul Agathen and I'm senior vice president for energy supply services at Ameren Corporation, headquartered in St. Louis, Missouri. We serve 1.5 million electric customers and 300,000 natural gas customers in Missouri and Illinois. Other than normal utility services provided under state approved tariffs, I am not aware of any Federal grants or contracts in the current fiscal year.

We at Ameren, like many other electric utilities, have been successful in the past by giving our customers two things -- excellent service and reasonable, competitive prices. Today, our prices are reasonable and affordable. They certainly won't remain that way if the Kyoto Protocol is ratified by the Senate or if it is implemented through the back door, specifically through regulatory means prior to Senate approval of the protocol.

As an example of back door implementation, I would refer you to an internal memorandum from the Environmental Protection Agency (EPA) Office of Policy, Planning, and Evaluation dated May 31, 1994. This memorandum includes a list of "proposed additional actions for the Climate Change Action Plan." At the top of the list is a proposal to "Establish Hazardous Air Pollutant Standards (HAPS) for Greenhouse Gases as a Backstop for the Action Plan." The EPA memorandum indicates that regulation of CO, could be accomplished through a regulatory proceeding, although "such aggressive use of Clean Air Act authority" might not be well received by Congress. Recent developments suggest that EPA will act upon its proposal to establish HAPS for $CO_2$.

Earlier this month, EPA published a Federal Register notice of a proposed settlement agreement under the Clean Air Act that was filed with the U.S. Court of Appeals for the District of Columbia on April 15, 1998. The June 2 notice states that a lawsuit was filed alleging "failure" by EPA to "list, and determine whether to regulate" several named hazardous air pollutant emissions from electric utilities, including $CO_2$. This notice appears to be misleading since, as far as our trade association can tell, no new lawsuit has been filed. In fact, the settlement is entitled "Stipulation for Modification of Settlement Agreement." This refers to modifications to a 1994 agreement that was entered into between EPA and the Natural Resources Defense Council (NRDC) for implementation of a HAPS study.

Despite assurances to several congressional committees in February and March 1998 by Under Secretary of State Stuart Eizenstat that the Administration would not take any action

to implement the Kyoto Protocol prior to ratification by the U.S. Senate, EPA's modification agreement covers the greenhouse gas $CO_2$. While EPA's General Counsel concluded that $CO_2$ met the Clean Air Act's statutory definition of an "air pollutant," he also said that that alone really meant little because it does not assure that EPA could ever subject it to regulation under the applicable tests required to be met before regulation. As many have observed, sound science would likely not support $CO_2$ being defined as a pollutant since it is essential to plant life and the life of all of us.

Nothing in the Clean Air Act imposes a duty on EPA to list and regulate $CO_2$ (nor $SO_2$ or NO, for that matter) as a hazardous air pollutant. Thus, there is no failure to act as indicated in the June 2 notice. Nonetheless, EPA appears to be moving forward with an effort to implement the regulation of $CO_2$ – as would be required under the Kyoto Protocol – prior to ratification of the protocol by the U.S. Senate.

Aside from our concerns about the Kyoto Protocol, I want to be clear. We in the electric utility industry take seriously our responsibility to protect the environment and have made significant strides in meeting that responsibility.

Our industry is active in voluntary efforts to enhance and protect the environment. In 1993, Edison Electric Institute initiated, with the Department of Energy, a voluntary, collaborative effort involving more than 600 electric utilities to address greenhouse gas emissions. That program, the Climate Challenge, is the world's largest and most successful voluntary

environmental initiative. In fact, the Department of Energy projects that in the year 2000, Climate Challenge participants will reduce, avoid or sequester 172 million metric tons of carbon dioxideequivalent greenhouse gases.

The Climate Challenge program consists of numerous activities by 643 individual utilities and 9 industry-wide initiatives to achieve the reduction, avoidance, or sequestration of greenhouse gas emissions. My own company is involved in 19 Climate Challenge projects. For example, we have committed $5 million to help support the $52 million EnviroTech Fund to develop more efficient energy technologies. Another example is our GreenLeaf program. Ameren annually funds GreenLeaf grants ranging from $50,000 to $100,000. Through these grants, schools, parks, and other facilities benefit from landscaping and energy conservation projects. We also contribute to a regional ground source heat pump program. The result of all these initiatives is that Ameren has reduced almost 8 million tons from 1991 through 1997.

In addition, Ameren has long promoted programs related to energy efficiency, recycled products, waste reduction, and protection of wildlife and wilderness areas. We recently received national and state recognition for several projects designed to improve Missouri's Lake of the Ozarks and expand facilities at the World Bird Santuary. We strive to protect the environment while offering quality service at affordable prices.

At Ameren, we take pride in our environmental stewardship, service, and prices. However, the requirements inherent in the Kyoto Protocol could have a severe economic impact on our

company, resulting in higher prices for our customers and reduced funding for voluntary environmental initiatives.

The Administration, last December in Kyoto, negotiated a protocol that, according to numerous studies and analyses[1] would place great stress on the U.S. economy, lead to a significant loss of jobs, and force a reduced lifestyle on our citizens. These studies indicate that electricity prices could increase substantially. One study conducted by Charles River Associates and DRI/McGraw-Hill for the Electric Power Research Institute indicates that industrial electricity prices could rise significantly across the U.S. In Missouri, for example, industrial electricity prices could increase 54.4 percent, according to that study.

The Charles River Associates and DRI/McGraw-Hill study, and others, point to a scenario dramatically different from the Administration's own recent economic testimony. While Dr. Janet Yellen, chair of the Council of Economic Advisors, has stated repeatedly that she expects the economic impact and electricity price increases to be minimal, those predictions are based upon extremely optimistic – and unlikely – assumptions.

One of the underlying assumptions in Dr. Yellen's testimony is developing country participation. However, developing countries, especially China and India, have steadfastly

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[1] **For example: Resource Data International, Inc.** ***At What Cost? Federal Environmental Regulations in a Competitive Electricity Marketplace,*** **May 1998, and** ***The Kyoto Protocol: Putting U.S. Electricity Supply and GDP at Risk,*** **February 1998; WEFA, Inc.** ***The Kyoto Protocol: Severe Economic Consequences,*** **Testimony of Mary H. Novak, Sr. Vice President, WEFA, Inc., March 5, 1998, and** ***Global Warming: The Economic Cost of Early Action, 1997;*** **and Charles River Associates, Economic** ***Implications of the Adoption of Limits on Carbon Emissions from Industrialized Countries,*** **November 1997.**

refused to make any commitments to limit or reduce their emissions. In fact, during the recent United Nations climate change meetings in Bonn, Germany, developing nations reiterated their strong opposition. In a June 12, 1998 statement, the Ambassador of the Republic of Indonesia, on behalf of the Group of 77 and China, stated:

> The COP-4[2] should not be distracted by issues which are extraneous to the letter and the spirit of the Convention, namely through introduction of any new commitments for the developing country Parties ... The Group reiterates that there must be no new commitments, voluntary or otherwise, introduced for all developing countries, under any guise in such reviews.

Questions of fairness and trade implications aside, without the participation of developing countries, it is doubtful that reductions by the United States and other developed nations alone would have any positive impact on atmospheric concentrations of greenhouse gases. Bert Bolin, former chairman of the Intergovernmental Panel on Climate Change (IPPC) – the United Nations body charged with the science of climate change – first raised this point in February 1995 when he stated that the impact of proposals under consideration then for reductions only by developed nations "would not be detectable on projected temperature increases."

The Administration further assumes in its economic testimony that international emissions trading will reduce economic impacts in the U.S. While such a program could potentially reduce the cost of achieving the Kyoto requirements, trading is only a concept in the protocol and key details about principles, rules, and methods of verification and accountability are not

[2] The fourth meeting of the Conference of the Parties to the United Nations Framework Convention on Climate Change to be held in Buenos Aires, Argentina in November 1998.

addressed. Virtually no progress was made on these details at the recent **Bom** meetings. The **way** the trading program is structured and administered will affect its usefulness in reducing costs. Given the difficulties that the U.S. negotiators faced in Kyoto and **Bom,** it is far from certain that an international emissions trading program can be structured so as to render true benefits.

Furthermore, there are proposals, such as one by the European Union, which would limit the percentage of a country's reduction requirements that could be achieved through non-domestic programs like the Clean Development Mechanism (CDM) and trading. A paper presented in Bonn on June 5, 1998 by the United Kingdom of Great Britain and Northern Ireland, on behalf of the European Union (EU) and eight other nations, summarizes the EU's position on the principles, modalities, rules, and guidelines for an international emissions trading framework. The EU calls for a system that ensures that "trading is supplemental to domestic action for the purposes of meeting commitments" and that "domestic actions should provide the main means of meeting commitments ... [and that] a 'concrete ceiling' on the use of all the flexible mechanisms has to be defined. .." Developing nations and environmental organizations also support limitations on the use of trading and other flexible mechanisms.

The U.S. opposes limitations on the use of flexible mechanisms. In fact, the Administration apparently **assumes** no such limitations in discussions of the economic impacts of the Kyoto Protocol. However, the outlook for unrestricted use of trading and other market mechanisms to meet the requirements of the protocol is not promising.

So, despite reassuring promises of minimal economic impacts, the Kyoto Protocol has a very real potential to raise significantly the cost of electricity and, in the process, to wreak havoc on our economy.

The impact of the treaty on the electric utility industry is clearly illustrated in a recent study conducted by Resource Data International (RDI). The study, just released last month by the Edison Electric Institute, assesses the impact of the Kyoto Protocol, as well as all the current U.S. Environmental Protection Agency air regulatory initiatives, on the electric industry. I will first address the Kyoto portion of the RDI study.

The RDI study estimates that to meet the 7 percent reduction below 1990 levels requirements of the Protocol, a "31 percent reduction from anticipated aggregated emissions" in our industry would be necessary. Of course, this assumes that all segments of society and the economy share equally in the burden; any policy decision that would not equitably distribute the burden could increase this estimate.

The RDI study also states that:

> massive reductions in coal-fired generation would be required. Given the fact that there are no commercially viable $CO_2$ removal technologies, replacement of coal-fired generation with lower $CO_2$ emitting sources of generation is the only reduction option available to the electric industry. RDI's analysis indicates that 36 percent of current U.S. coal-fired generation may need to be removed from the generation mix in order to meet the Kyoto target.

**The study** points out, along with an earlier RDI study[3], **that natural gas generation would** have to replace a significant amount of the reduced coal generation. Other fuel sources, such as nuclear, hydroelectric, and renewables, might be used to replace a portion of coal generation, but various factors, including governmental policies and environmental concerns, limit their prospects.

For example, nuclear power **accounts for about** 20 percent of electricity generation today, but no new nuclear plants are being planned and many of those currently in operation face impending retirement due to relicensing difficulties and cost pressures in a competitive market. Hydroelectric also faces relicensing difficulties and environmental constraints. Renewables, such as wind and solar, are expected to capture only about 3 to **4** percent of the market in **2010,** according to the Energy Information Administration. Renewables also face other difficulties, including economics, resource availability, and, in the case of wind, environmental concerns.

The most recent RDI study indicates that "the stresses to the electricity and natural gas generation would be enormous" and that "even if wind and solar generation increase by almost 500 percent and natural gas increases **by** 170 percent from 1997 levels, the nation would still be faced with a 19 percent gap in available generation to meet the projected electricity supply in 2010."

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[3] Resource Data International, *The Kyoto Protocol: Putting U.S. Electricity Supply and GDP at Risk,* February 1998.

We estimate that Ameren would need to replace about 90 percent of the roughly 20 million tons of coal that we now burn with natural gas to meet the Kyoto Protocol requirements. Such a shift to natural gas generation is a serious concern. One reason is that the cost of natural gas is higher than coal.

A February 1998 RDI study indicates that gas generation costs are 1.9 times those at existing coal-fired plants.[4] The Energy Information Administration (EIA) recently estimated that the cost of natural gas will be about 2.6 times the cost of coal in 2010.[5] Based on the EIA's projected prices for coal and natural gas in 2010, a kilowatt hour of electricity that now costs 7 cents would cost about 25 percent more. This example, however, represents only the increase in the cost of fuel. There would be additional costs, including construction of new pipeline capacity to get the natural gas to our plants, not to mention the environmental regulatory process that would have to be navigated to obtain site approvals. There would be capital costs to modify our plants to burn natural gas and finally, there would be natural gas price increases due to greater consumption throughout the U.S.

These cost increases could be devastating to our customers. Small businesses, farmers, large manufacturers who employ thousands of workers, individual consumers, including those with limited incomes, would all feel the effects of the Kyoto Protocol.

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[4] Ibid.

[5] Energy Information Administration, *Annual Energy Outlook* 1998. Calculated from Table A3, Energy Prices by Sector and Source, p. 104.

Proponents of the treaty have said that any increase in prices to customers can be offset by implementing retail competition in the electric utility industry. It would be wrong to take from our customers the possible cost savings from restructuring of the electric utility industry to pay for the costs of compliance with environmental regulations under global climate change protocols or the Clean Air Act. Moreover, it would be unfair to single out the electric utility industry to the exclusion of other industries and other sectors of the economy. Why should our electric customers bear the brunt of the costs of compliance with international treaties addressing global climate change? Furthermore, the laws of economics work in both directions – prices can rise as well as fall. In that context also, prices are more likely to increase if the supply is curtailed due to costly retrofits, reduced supply of natural gas, or pipeline constraints. As a result, the projected savings from industry restructuring would be lost.

The Kyoto Protocol is just one environmental initiative facing our utilities. The EPA has promulgated or proposed other regulations addressing ozone, ozone transport, fine particulates, and regional haze, to name a few. To meet the requirements of these initiatives alone, the recent RDI study estimates, will require a capital investment of $22 billion dollars and annual operation and maintenance expenditures of $15 billion. Add in the costs of the Kyoto Protocol and the cost pressures of restructuring, and some power plants will be closed prematurely. The RDI study estimates that 21,000 megawatts of power are at risk. All of our customers will pay the price for these decisions.

As the Intergovernmental Panel on Climate Change (IPCC) reported in 1995, "Our ability to quantify the human influence on global climate is currently limited because the expected signal is still emerging from the noise of natural variability, and because there are uncertainties in key factors." Given the uncertainties expressed by the IPCC, the scientific doubts raised by numerous others, and the significant economic risks not only for our industry and our customers, but also the nation as a whole, we have to ask: Does it make sense to move forward with the requirements agreed to in the Kyoto Protocol -- either formally or through back door implementation?

On behalf of the electric utility industry, I say no. We believe that such action simply is not good public policy. We do not suggest, however, that we sit back and do nothing. Indeed, we have demonstrated our commitment to address potential climate concerns through Climate Challenge and other voluntary programs. What we do suggest is that greenhouse gas emissions be addressed through similar voluntary, cost-effective, and flexible actions by all industries and all nations. Such efforts can be effective and they can be accomplished without risking serious economic harm.

Thank you for allowing me to speak today about this very important issue.